THORN RUN PARTNERS
GOVERNMENT RELATIONS

Memorandum

July 3, 2025

CHANGES TO IRA TAX CREDITS IN THE ONE BIG BEAUTIFUL BILL ACT

INTRODUCTION

On July 3, the House passed the One Big Beautiful Bill Act (H.R.1), sending the reconciliation package to President Trump's desk to be signed into law. Ultimately, the bill either terminates or phases out several of the Inflation Reduction Act (IRA) clean energy tax credits and enacts new restrictions related to foreign entities of concern (FEOC). Some highlights:

- **Transferability** — Transferability was largely preserved in the final text, though taxpayers are now prohibited from transferring credits to certain foreign entities.
- **Clean electricity —** The final bill provides a carveout from the new 2027 "placed in service" deadline for the 45Y and 48E clean electricity credits, allowing wind and solar projects that begin construction less than one year after the bill's enactment to receive the credit, but still requiring other solar and wind projects to be placed in service by the end of 2027. For all other types of projects — such as hydropower, nuclear, geothermal, and energy storage — the credit starts decreasing in 2034 until zeroing out in 2036. The new "material assistance" FEOC restrictions will apply to facilities that commence construction after 2025.
- **Advanced manufacturing —** The 45X advanced manufacturing credit phases out for critical minerals production by 2034, and it is phased out even earlier — after 2027 — for wind components.
- **Clean hydrogen —** The 45V clean hydrogen credit will be phased out after 2027, though this is an improvement upon previous versions of the legislation where the credit was slated to be terminated in short order.
- **Extensions or other changes —** The 45Z clean fuel credit is extended through 2029 and the 45U nuclear credit and 45Q carbon oxide sequestration credits expiration dates were left unchanged, though new restrictions related to FEOCs, foreign resources, and other changes were enacted.
- **Terminations** — Many other tax credits, including the 30D clean vehicles and 30C alternative refueling property credits, are being terminated early.

The Trump administration will now look to implement the various provisions of the One Big Beautiful Bill Act, and the Treasury Department and Internal Revenue Service (IRS) will begin pushing out guidance that outlines new rules for the IRA tax credits in the coming weeks and months. Notably, during a news interview earlier today, Rep. Ralph Norman (R-SC) said that the president has promised to aggressively enforce the phaseout of the 45Y and 48E credits for wind and solar as he sought to convince conservative Freedom Caucus holdouts to vote for the package. Additionally, House Republicans are already teasing the idea of a second reconciliation bill to advance President Trump's agenda, with some lawmakers calling for further cuts to the IRA. However, with midterm elections right around the corner, it is unclear whether a second package can come together before members turn their attentions to campaigning season.

This memorandum describes the tax credits under current law and outlines the changes that were made in the reconciliation package.

FOREIGN ENTITIES OF CONCERN

The bill contains several new FEOC restrictions on 45Y/48E — both at the ownership and the component level — and on 45X that prevent taxpayers from claiming these credits according to the conditions and timelines below:

Credit	Taxpayer is a "specified foreign entity"	Taxpayer is a "foreign-influenced entity"	Taxpayer receives "material assistance from a prohibited foreign entity"	Taxpayer holds a licensing agreement with a prohibited foreign entity
45Y/48E	**2026**, taxable years after enactment	**2026**, taxable years after enactment	**Facilities that start construction after 2026**	Applies to arrangements entered into or modified **after enactment**
45X	**2026**, taxable years after enactment	**2026,** taxable years after enactment	**2026**, taxable years after enactment	Applies to arrangements entered into or modified **after enactment**

- **Prohibited foreign entity (PHE)** includes the following:

    ↳ **Specified foreign entity (SFE)**

    1. Certain entities designated as threats to national security
    2. Foreign control entities (FCE):

    a. Governments of covered nations
    b. Citizen or national of a covered nation
    c. Entity or qualified business incorporated in or organized under the laws of a covered nation
    d. Entity or qualified business with principle place of business in a covered nation
    e. Any entity controlled by such entities, with "control" meaning ownership of more than 50 percent of stock, profits, capital, or other interests in a corporation, partnership, or any other entity
3. For all publicly traded companies — except those companies traded on exchanges in covered nations — different FCE rules apply. Publicly traded companies are considered FCEs if "controlled" by one or more SFEs (excluding FCEs), or one or more of the first three types of FCEs which are required to report their beneficial ownership to the Securities and Exchange Commission (SEC) or similar agency.

↳ **Foreign-influenced entity (FIE)**
1. During the taxable year:
    a. An SFE can appoint a covered officer, such as board member of C-suite executive
    b. A single SFE owns at least 25 percent
    c. One or more SFEs own 40 percent
    d. One SFE holds 15 percent of debt
2. SFE has "effective control," meaning SFE holds contractual rights that confer specific authority over key aspects of component production or electricity generation at the facility to the SFE
    ↳ Carveout for "bona fide purchase or sale" wherein a purchaser is not on notice that an SFE retains certain rights

- **Material assistance from a prohibited foreign entity**
    ↳ A material assistance cost ratio in excess of certain threshold amounts set for 45Y and 48E, as well as for 45X.
    - **45Y/48E** — The material assistance cost ratio is the percentage of total direct costs to the taxpayers attributable to manufactured products incorporated into the facility or energy storage technology upon completion of construction. that are not from a PFE.
    - **45X** — The material assistance cost ratio is the percentage of total direct material costs paid or incurred by the taxpayer for non-PFE eligible components.

$$\frac{\text{Total Cost(-)Cost of PFE components}}{\text{Total Cost}} = \text{Cost Ratio}$$

- ↳ A taxpayer does not include in the calculation of the material assistance cost ratio, the cost of manufactured products, eligible components, or constituent element, material, or subcomponent of an eligible component if the taxpayer entered into a binding written contract for those items prior to June 16, 2025, and if:
    - The wind or solar facility is placed in service by January 1, 2028, or for all other technologies the facility is placed in service by January 1, 2030, and the construction of the facility began before August 1, 2025.
    - For eligible components, the constituent element, material, or subcomponent, was used in a product sold before January 1, 2030.
- ↳ Includes safe-harbor tables for determining total costs attributable to a PFE, which the Department of Energy (DOE) is instructed to provide no later than December 31, 2026. The tables will identify the percentage of total direct material costs of any manufactured product or eligible component which is attributable to a PFE to make the material cost ratio calculation easier.

- **Licensing**
    - ↳ Bars credit for projects where taxpayer has any form of licensing agreement or other IP contract with a PFE entered into after the date of enactment, even if no express contractual right to control, influence, or facility's production exists.

BREAKDOWN

Provision	Current Law	One Big Beautiful Bill Act
45Y Clean Electricity Production Credit	**Effective 2025 onward with no fixed end date.** ↳ A per-kilowatt-hour tax credit for electricity generated by qualifying zero-emission facilities (technology-neutral replacement for the traditional renewable PTC)	**Terminates for wind and solar by 2028; projects that begin construction within 12 months are carved out from the 2027 "placed in service" deadline. Phased out for nuclear, geothermal, battery storage, and hydropower by 2036.** ↳ Credit phases out for wind and solar projects by 2028. Provides a carve-out for solar and wind projects that begin construction less than 12 months after enactment but would still require other wind and solar projects to be "placed in service" by the end of 2027. ↳ Does not codify IRS start of construction safe-harbor guidance, which states that projects must be placed in service at least 4 years after start of construction.

		↳ For all other projects, such as hydropower, nuclear, geothermal, and energy storage, keeps 100% of the credit until 2033 before decreasing to 75% in 2034, 50% in 2035, and then zero in 2036. ↳ Denies eligibility of expenditures for wind and solar leasing arrangements upon enactment. ↳ No credit is allowed for a facility that commences construction after 2025 that includes any material assistance from a PFE. No credit allowed after enactment if the taxpayer is a PFE. ↳ Limits existing contract safe harbor for material assistance to facilities the construction of which begins before August 1, 2025. ↳ Preserves transferability.
48E Clean Electricity Investment Credit	**Effective 2025 onward with no fixed end date.** ↳ An investment tax credit for clean electricity projects and energy storage, providing a percentage of the project's cost as a credit (technology-neutral replacement for the traditional ITC).	**Terminates for wind and solar by 2028; projects that begin construction within 12 months are carved out from the 2027 "placed in service" deadline. Phased out for nuclear, geothermal, battery storage, and hydropower by 2026.** ↳ Credit phases out for wind and solar projects by 2028. Provides a carve-out for solar and wind projects that begin construction less than 12 months after enactment but would still require other wind and solar projects to be "placed in service" by the end of 2027. ↳ For all other projects, such as hydropower, nuclear, geothermal, and energy storage, keeps 100% of the credit until 2033 before decreasing to 75% in 2034, 50% in 2035, and then zero in 2036. ↳ No credit is allowed for a facility that commences construction after 2025 that includes any material assistance from a PFE. No credit allowed after enactment if the taxpayer is a PFE. ↳ Preserves transferability.
45U Zero-Emission Nuclear Power PTC	**Available until 2032.** ↳ A production tax credit for electricity generated by existing nuclear power	**Preserved until 2032.** ↳ Disqualifies facilities owned by FEOCs two years after enactment.

	plants (to support continued operation of zero emission nuclear facilities)	↳ Preserves transferability.
45X Advanced Manufacturing Credit	**Available until 2032.** ↳ A tax credit to incentivize domestic manufacturing of certain clean energy components (e.g. solar panels, wind turbine parts, batteries). Credit is claimed per unit of eligible component produced and sold. ↳ Scheduled to phase down in the last years: under current law, credit drops to 75% in 2030, 50% in 2031, 25% in 2032, terminating after 2032.	**Phased out by 2034.** ↳ Phases out for producing critical minerals, with 75% in 2031, 50% in 2032, 25% in 2033, and no credit beginning in 2034. ↳ Phases out early for wind components after 2027. ↳ Establishes a new metallurgical coal production tax credit at 2.5% that can be claimed from 2026 through 2029. ↳ Preserves “stackability,” meaning that manufacturers can claim credit for eligible components incorporated into other eligible components. However, starting in 2027, the components must be made at the same factory and at least 65% of the direct material costs “paid or incurred” by the manufacturer must be for inputs mined, produced, or manufactured domestically. ↳ Adds requirement that, to qualify as a battery module, an article must be "comprised of all other essential equipment needed for functionality, such as current collector assemblies and voltage sense harnesses, thermal collection assemblies, or other essential energy collection equipment." ↳ Exempts publicly traded companies from many of the FIE rules. ↳ Preserves transferability.
45V Clean Hydrogen PTC	**Available to projects commencing construction before 2032.** ↳ A production tax credit for clean hydrogen fuel, up to $3 per kilogram of hydrogen produced, for the first 10 years of operation of a qualifying facility.	**Terminates credit for projects that begin construction after 2027.** ↳ Only projects that begin construction by December 31, 2027 qualify for the credit, an improvement upon the previous versions of the bill.
45Z Clean Fuel Production Credit	**Available through 2027**. ↳ Tax credit for domestic production of low carbon transportation fuels (such	**Extends through 2029.** ↳ Adds two more years of eligibility.

	as biodiesel, renewable diesel, sustainable aviation fuel), based on the fuel's lifecycle emissions (available starting in 2025) ↳ Applies to eligible fuel produced and sold for use in 2025, 2026, 2027, after which it expires.	↳ Imposes a 20% decrease on the value of the credit for fuel produced from feedstocks produced or grown outside the U.S. after 2025. ↳ Excludes indirect land use changes for the purposes of lifecycle greenhouse gas emissions and provides Treasury authority to establish distinct emission rates for specific manure feedstocks after 2025. Prevents negative emissions rates for fuels after 2025. ↳ Disallows the credit for SFEs after enactment and FIEs two years after enactment. ↳ Preserves transferability.
45Q Carbon Oxide Sequestration Credit	**Available to projects commencing construction before 2033.** ↳ Provides a credit per metric ton of qualified carbon oxide captured and disposed of or used by a taxpayer.	**Establishes parity for different CO2 uses.** ↳ Conforms credit values for captured carbon oxide that is disposed of in secure geological storage and that which is utilized first and then sequestered, effective for equipment placed in service after 2022. ↳ Disallows the credit for SFEs after enactment and FIEs two years after enactment.
30D Clean Vehicles Tax Credit	**Available through 2032.** ↳ Tax credit up to $7,500 for consumers purchasing a new plug in electric or fuel-cell vehicle. IRA introduced income and price eligibility limits and battery sourcing requirements, but removed the prior manufacturer sales cap.	**Terminates after 3 months.** ↳ Terminates the credit for vehicles acquired after September 30, 2025.
45W Commercial Clean Vehicles Tax Credit	**Available through 2032**. ↳ Tax credit for businesses and tax exempt entities to purchase new electric or fuel-cell vehicles. Credit of up to $7,500 for light duty vehicles or $40,000 for heavy trucks.	**Terminates after 3 months.** ↳ Terminates the credit for vehicles acquired after September 30, 2025.
25D Residential Clean Energy Credit	**Available through 2034, with a phase down.** ↳ Tax credit for homeowners installing residential solar panels, solar water heaters, wind turbines, geothermal heat	**Terminates after 2025.** ↳ Terminates the credit with respect to expenditures made after December 31, 2025.

	pumps, or battery storage. Currently 30% of the cost. ↳ Credit is 30% for installations through 2032, then drops to 26% in 2033 and 22% in 2034; expires end of 2034.	
25E Used Clean Vehicles Tax Credit	**Available through 2032**. ↳ Tax credit for buying a used electric vehicle, up to $4,000 (with income and vehicle price limitations).	**Terminates after 3 months.** ↳ Terminates the credit for vehicles acquired after September 30, 2025.
30C Alternative Refueling Property Tax Credit	**Available through 2032**. ↳ Tax credit for installation of electric vehicle charging stations or other alternative fuel refueling property (e.g. hydrogen fueling), generally 30% of the cost up to a cap	**Terminates after 12 months.** ↳ Terminates the credit with respect to property placed in service after June 30, 2026.
25C Energy Efficiency Home Improvement Credit	**Available through 2032.** ↳ Tax credit for energy efficient home upgrades (insulation, windows, doors, HVAC, etc.), up to $1,200 per year (30% of qualified improvement costs, with specific item caps)	**Terminates after 180 days.** ↳ Terminates the credit with respect to property placed in service after December 31, 2025.
179D Energy Efficient Commercial Buildings Deduction	**Effective 2023 onward with no fixed end date.** ↳ A tax deduction (not a credit) for energy efficiency enhancements in commercial buildings. Allows qualifying building owners or designers to deduct an amount (up to $5 per square foot, depending on energy savings and wage requirements) for efficiency improvements.	**Terminates after 12 months.** ↳ Terminates the deduction with respect to property constructed after the date that is 12 months after enactment.
Transferability	**Effective 2023 onward with no fixed end date**. ↳ Allows certain business taxpayers to sell or transfer their tax credits to unrelated parties for cash. This IRA	**Preserved, FEOC restrictions added.** ↳ Maintains transferability for credits being phased out, preserved, or extended. ↳ Prohibits transfers to SFEs.

provision helps monetization of credits (especially for entities with limited tax liability).